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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,846	09/25/2003	Eugene George Olczak	133074-1	8697

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
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1772

MAIL DATE	DELIVERY MODE
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07/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/671,846

Applicant(s)

OLCZAK ET AL.

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-13 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-13 and 29-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/18/07</u> . | 6) <input type="checkbox"/> Other: _____  |

### **RESPONSE TO AMENDMENT**

1. Claims 2-13 and 29-38 are pending in the application, claims 1 and 14-28 have been cancelled.
2. Amendments to the claims, filed on April 18, 2007, have been entered in the above-identified application.

### ***REJECTIONS***

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

### ***Claim Rejections - 35 USC § 103***

4. Claims 2-13 and 29-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath (U.S. Patent No. 4,025,159) in view of Nilsen et al. (U.S. Patent No. 5,657,162).

McGrath discloses a multiplayer optical film (*cellular retroreflective sheeting, title*). The film comprises at least two component films (*bass sheet and cover film, col. 3, lines 25-26*). At least one of the component films (*bass sheet*) has an upper and lower surface (*figure 3*). The upper surface comprises a series of optical structures (*mircospheres, col. 3, line 33*) and a plurality of raised spacing structures (*narrow intersecting bonds, col. 3, line 26*). The lower surface is essentially planar (*figure 3*). The component films are joined so as to constitute a single structure comprising at least one gap disposed between the component films (*figure 3*).

Furthermore, the gap is deemed to be greater than the coherent length of light used to illuminate the optical film since the reference discloses that same height for the spacing structures as claimed by Applicant. See the discussion below regarding claim 7. Furthermore, Applicant's specification on page 7, paragraph [0020] recites that the gap between surfaces should be greater than the coherent length of the light source, typically no less than a few microns.

McGrath fails to disclose that there is a second component film.

Nilsen discloses a retroreflective article with multiple prism locations (*title*). Figure 5 shows that multiple layers of retroreflective sheeting can be stacked to create different design patterns (*col. 5, lines 13-60*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to stack multiple layers of McGrath as taught by Nilsen in order to create different design patterns.

When layers of McGrath are stacked they will create the claim first and second component film structural arrangement.

The preamble/limitation "backlighting display" is deemed to be a statement with regard to the intended use and is not further limiting in so far as the structure of the product is concerned. In article claims, a claimed intended use must result in a *structural difference* between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. MPEP § 2111.02.

McGrath discloses that the optical structures are convex and concave structures (*microspheres, col. 3, line 33 and figure 3*). McGrath discloses that the optical structures are

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prisms, since the reference discloses cube-corner elements can be interchangeable used with the microspheres (*col. 6, lines 13-20 and figure 7*). McGrath discloses that the raised spacing structures comprise at least one post-structure and/or at least one beam structure (*narrow intersection bonds, col. 3, line 26 and figures 1, 3 and 7*). McGrath discloses that the spacing structures have a height relative to the optical structures between about 0.1 and about 20 microns, since the reference shows in figure 3 that the spacing structure, i.e. narrow intersection bonds, have a height of half the diameter of the optical structures, i.e. microspheres, and the diameter of the microspheres is between 10 and 200 micrometers (*col. 5, lines 29-30*), which means that the height of the narrow intersection bonds is between 5 to 100 microns. McGrath discloses that the raised spacing structures comprise at least one post-structure (*narrow intersection bonds, col. 3, line 26 and figures 1, 3 and 7*). McGrath discloses that the component films have a thickness between about 0.006 and about 5 millimeters, since the reference discloses that the base sheet has a thickness of 75 micrometers (*col. 6, lines 60-61*) and the cover film has a thickness between 1 and 5 mils (*col. 5, line 14*), which together have a thickness of 100.4-203 micrometers or 0.1 to 0.2 mm. McGrath discloses that the gap comprises solid matter, fluid matter and combinations thereof, since the reference discloses that air, i.e. a fluid, in the gaps (*col. 3, lines 23-30*). McGrath discloses that the raised spacing structures have either equal or unequal heights relative to the optical structures (*figures 3 and 7*). Figure 3 in McGrath shows that the raised spacing structures occupy an area, the area is deemed to define a percentage of a total area of the film surface upon which the raised spacing structures are disposed. Furthermore, it can be seen from figure 1 that the percentage is in the range between about 1 and about 50.

***ANSWERS TO APPLICANT'S ARGUMENTS***

5. Applicant's arguments in the response filed April 18, 2007 regarding the 35 U.S.C. 103(a) rejection over McGrath in view of Nilsen of record have been carefully considered but are deemed unpersuasive.

Applicant argues regarding claims 33 and 36 that McGrath does not disclose (1) the raised spacing structures of the first backlighting display component film contact the lower surface of the second backlighting display component, and (2) both the first backlighting display component film and the second backlighting display component film have an upper surface comprising a series of optical structures.

First, the examiner has already conceded that McGrath does not disclose a second backlighting display component. Thus, Applicant's point (1) is moot. Second, McGrath discloses both microspheres and cubed corner elements as a series of optical structures. Furthermore, it is unclear why the side with the optical structures is not the upper surface, since the upper surface is merely the surface that contains the optical structures. Also, the fact that McGrath has additional features, i.e. the coversheet 25, is irrelevant since the claims recite "comprising." Therefore, McGrath does disclose Applicant's point (2).

Applicant argues that Nilsen does not cure the deficiencies of McGrath. Specifically Applicant states that Nilsen does not suggest that any of the prisms should be on top of the cover sheet of McGrath even if that sheet were modified to have two layers of prisms.

First, Nilsen was only relied upon to show that multiple layers of retroreflective material could be used together to create different patterns. Second, for argument sake, Nilsen does disclose a transparent layer (figure 5, ref. #160) between the two layers of retroreflective

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material, which is equivalent to the transparent cover sheet (*figure 3, ref. #12*) in McGrath being between the two layers of the new combination.

Applicant further argues that even if McGrath and Nilsen were combined, the combination does not suggest both a first backlighting display component film and a second backlighting display component film having an upper surface comprising a series of optical structures, where raised spacing structures of the first backlighting display component film contact the lower surface of the second backlighting display component film.

First, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Second, Applicant has not pointed out how the combination fails to disclose this limitation. Therefore, in view of the above arguments the examiner maintains the rejection over McGrath and Nilsen.

Applicant argues regarding claim 34 that McGrath does not disclose “wherein said raised spacing structures comprise as least one post structure” and that Nilsen fails to cure the deficiencies.

The examiner does admit that McGrath discloses narrow intersecting bonds, the intersecting points are posts. A post is merely a vertical support structure, the intersects clearly encompass this concept.

Applicant argues regarding claim 35 that McGrath does not disclose “a backlight illumination source providing illumination to the multilayer backlighting display optical film” and that Nilsen fails to cure the deficiencies.

The examiner respectfully disagrees, since McGrath discloses that light rays are the backlight illumination source and thus provide illumination to the multilayer backlighting display optical film (*col. 1, lines 26-43*).

Applicant argues regarding claim 37 that McGrath does not disclose “wherein at least one of said first backlighting display component film or second backlighting display component film is a polarization recycling film” and that Nilsen fails to cure the deficiencies.

The examiner respectfully disagrees, since McGrath is a retroreflective article that concentrates the light, thus it is polarizing.

Applicant argues regarding claim 38 that McGrath does not disclose “said component films being configured such that the optical structures of the component films are configured orthogonally” and that Nilsen fails to cure the deficiencies.

The examiner respectfully disagrees, since McGrath discloses a grid structure, when to layers are on top of each other they will always be orthogonal to each other.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37



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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

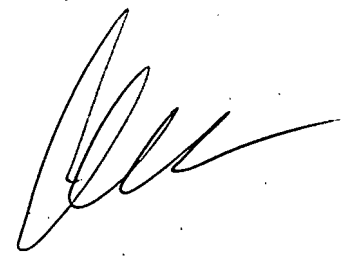

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac

7/9/07



**ALICIA CHEVALIER**  
**PRIMARY EXAMINER**